

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A hydraulic coupling system, comprising
a pump;
a clutch assembly including an actuator and a multi-disk clutch pack coupled to
the actuator, the pump pressuring a fluid in the actuator to engage the clutch pack and
pumping the fluid through the clutch pack to cool the clutch pack;
a pressure control communication with a reservoir, the actuator and the clutch
pack valve for maintaining the fluid pumped to the actuator at a higher pressure than
the pressure of the fluid pumped through the clutch pack to cool the clutch; and
a controller which transmits pulse-width modulated control signals to the pump
to control the operation of the pump and pulse-width modulated control signals to the
valve to control the operation of the valve.
2. (Cancelled)
3. (Cancelled)
4. (Original) The system of claim 1 further comprising a two-way valve
which provides a preload pressure to the system when the pump is not operating and
the clutch pack is disengaged.
5. (Original) The system of claim 1 further comprising a pilot valve which
provides a preload pressure to the system when the pump is not operating and the
clutch pack is disengaged.
6. (Original) The system of claim 1 further comprising an accumulator for
compensating for fluid leakage in the system.

7. (Original) The system of claim 1 wherein the pump is a gerotor, vane or gear pump.